

**REMARKS**

In the Office Action, claims 1-21 were rejected. Claims 2 and 13 have been amended. Upon entry of the amendments, claims 1-21 will be pending in the present patent application. Reconsideration and allowance of all pending claims are requested.

**Rejections Under 35 U.S.C. § 112**

Claims 2-6 and 13-18 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The Examiner submitted that the phrase “system model based on data profiles” recited in independent claim 13 and claim 2 gave no clear and concise indication as to how the recited system was actually modeled by the data profiles, in the specification. In response to the office action, Applicants amended claims 2 and 13. Applicants believe that the amended claims are fully enabled by the specification. Accordingly, Applicants request that the Examiner reconsider and remove the §112, first paragraph rejection of claims 2-6 and 13-18.

**Rejections Under 35 U.S.C. § 102**

Claims 1, 9, 13, 19 and 21 were rejected under 35 U.S.C. § 102(b) as being anticipated by “IEEE-P1451 Network Capable Application Processor Information Model”, J. Warrior, IEEE-P1451.1 Working Group, IEEE 1996. Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration.

**Independent Claim 1 and claims depending therefrom**

Independent claim 1 was rejected as being anticipated by the Warrior reference. Claim 1 recites a method of analyzing system performance with a system statistical associate (SSA). The method comprises collecting data on at least one system operating variable and discerning at least one parameter affecting system performance from the

data. The method then comprises generating a report on the at least one parameter affecting system performance.

The Examiner indicated that similar steps were present in the Warrior reference. However, the Warrior reference does not anticipate the method of claim 1 for at least the reasons set forth below.

The Warrior reference discloses a standard that defines an object model with a network-neutral interface for connecting processors to communication networks, sensors and actuators. In particular, the Warrior reference develops standardized connection methods for Smart Transducers to control networks. The objective is achieved through the definition of a common object model for the components of a Networked Smart Transducer, together with interface specifications to these components.

The Examiner contended that Warrior discloses the step of discerning a parameter affecting system performance. However, Applicants point out that the Warrior reference does not disclose discerning a parameter affecting system performance. Applicants have carefully reviewed the sections (Figs. 2, 3, Sec. 4.0-8.4.2.2) referred to by the Examiner and submit that these sections do not disclose discerning a parameter affecting system performance. Instead these sections disclose a state transition diagram specifying behavioral characteristics of an object model, a class hierarchy for a set of object model specifications, conventions used to define an object model, specifications for an information model, data types, common properties of classes and objects and top-level class definitions.

Clearly, the above passage does not disclose discerning a parameter affecting system performance. In accordance with the present patent application, "discerning" a parameter affecting system performance involves monitoring a set of parameters and determining a particular parameter affecting system performance from the set of

parameters. Specifically, on page 5, paragraph 0017 in the present patent application, the term “discern” refers to the selection of at least one previously unknown or unconfirmed parameter affecting system performance, from collected data. In other words, a new parameter affecting system performance may be “discerned” from the collected data, even though that particular parameter was previously being monitored for some other reason.

Because Warrior does not disclose, at least, discerning a parameter affecting system performance, the reference cannot anticipate claim 1. Accordingly, claim 1 and the claims depending therefrom are believed to be clearly patentable over Warrior as well as any other prior art of record.

**Independent Claims 9, 13 and 19 and claims depending therefrom**

Independent claims 9, 13 and 19 were similarly rejected as being anticipated by the Warrior reference. Independent claim 9 recites a system statistical associate (SSA) module for use in a SSA monitoring system. The SSA module comprises a sensor configured to sense at least one operating variable on a monitored device and a data processor configured to discern at least one parameter affecting the performance of the monitored device from the at least one sensed operating variable. The SSA module further comprises a transmitter configured to transmit a data profile including the discerned parameter to a SSA system monitor.

Independent claim 13 recites a system statistical associate (SSA). The SSA comprises a plurality of SSA modules. Each SSA module comprises a sensor configured to sense at least one operating variable of a piece of equipment and a module computer coupled to the sensor. The module computer is programmed to discern a parameter affecting equipment performance from the operating variable, create a data profile of parameters determined to affect equipment performance and communicate the data profile to the SSA. The SSA further comprises a SSA computer programmed to derive at

least one system model based on data profiles received from the plurality of SSA modules.

Independent claim 19 recites a system statistical associate (SSA). The SSA comprises means for generating data profiles of a plurality of monitored devices, means for discerning at least one parameter affecting system performance from the data profiles and at least one of means for reporting the discerned parameter and means for automatically changing the discerned parameter to improve system performance.

As discussed with respect to independent claim 1 above, Warrior does not disclose discerning a parameter affecting system performance. In particular, Warrior does not disclose a module configured to discern at least one parameter affecting the performance of a monitored device or an equipment, or means for discerning a parameter affecting system performance and automatically changing the discerned parameter to improve system performance. Because Warrior does not disclose, at least, a module or a means for discerning parameters affecting system performance, the reference cannot anticipate claims 9, 13 and 19. Accordingly, claims 9, 13 and 19 and the claims depending therefrom are believed to be clearly patentable over Warrior as well as any other prior art of record.

Claims 1, 9, 13, 19 and 21 were also rejected under 35 U.S.C. 102(b) as being clearly anticipated by "IEEE Std 1451.1-1999", IEEE-SA Standards Board, June 1999.

The Examiner indicated that similar steps were present in the IEEE Std 1451.1-1999 reference. However, the IEEE Std 1451.1-1999 reference does not anticipate the claims 1, 9, 13 and 19 for at least the reasons set forth below.

The IEEE Std 1451.1-1999 reference discloses a standard that defines an object model with a network-neutral interface for connecting processors to communication

networks, sensors and actuators. In particular, the IEEE Std 1451.1-1999 reference develops standardized connection methods for Smart Transducers to control networks. The objective is achieved through the definition of a common object model for the components of a Networked Smart Transducer, together with interface specifications to these components.

The Examiner contended that the IEEE Std 1451.1-1999 reference discloses discerning a parameter affecting system performance. However, Applicants point out that the IEEE Std 1451.1-1999 reference does not disclose discerning a parameter affecting system performance. Applicants have carefully reviewed the sections (Fig. 1, Introduction) referred to by the Examiner and submit that this section does not disclose discerning a parameter affecting system performance. Instead this section discloses the components of a Networked Smart Transducer, with the interface specifications for these components. In addition, this section discloses the physical and logical view of a Networked Smart Transducer.

Clearly, the above passage does not disclose discerning a parameter affecting system performance. As mentioned above, in accordance with the present patent application, “discerning” a parameter affecting system performance involves monitoring a set of parameters and determining a particular parameter affecting system performance from the set of parameters. Specifically, on page 5, paragraph 0017 in the present patent application, the term “discern” refers to the selection of at least one previously unknown or unconfirmed parameter affecting system performance, from collected data. In other words, a new parameter affecting system performance may be “discerned” from the collected data, even though that particular parameter was previously being monitored for some other reason.

Because the IEEE Std 1451.1-1999 reference does not disclose, at least, discerning a parameter affecting system performance, the reference cannot anticipate

claims 1, 9, 13 and 19. Accordingly, claims 1, 9, 13 and 19 and the claims depending therefrom are believed to be clearly patentable over the IEEE Std 1451.1-1999 reference as well as any other prior art of record.

Claims 1, 9, 13, 19 and 21 were rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,539,267 (hereinafter, "Eryurek").

Eryurek discloses a device in a process control system for detecting events in the process control system by monitoring process signals.

The Examiner contended that Eryurek discloses discerning a parameter affecting system performance. However, Applicants point out that Eryurek does not disclose discerning a parameter affecting system performance. Applicants have carefully reviewed the section (Figs. CL1, L50 – CL2-L9) referred to by the Examiner and submit that this section does not disclose discerning a parameter affecting system performance. Instead, this section discloses the components of a device in a process control system for detecting events.

Clearly, the above passage does not disclose discerning a parameter affecting system performance. As mentioned above, in accordance with the present patent application, "discerning" a parameter affecting system performance involves monitoring a set of parameters and determining a particular parameter affecting system performance from the set of parameters. Specifically, on page 5, paragraph 0017 in the present patent application, the term "discern" refers to the selection of at least one previously unknown or unconfirmed parameter affecting system performance, from collected data. In other words, a new parameter affecting system performance may be "discerned" from the collected data, even though that particular parameter was previously being monitored for some other reason.

Because Eryurek does not disclose, at least, discerning a parameter affecting system performance, the reference cannot anticipate claims 1, 9, 13 and 19. Accordingly, claims 1, 9, 13 and 19 and the claims depending therefrom are believed to be clearly patentable over Eryurek as well as other prior art of record.


**Rejections Under 35 U.S.C. § 103**

Claims 2-8, 10-12, 14-18 and 20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Warrior in view of US Patent No. 6,847,854 (hereinafter "Dicenzo"). For a *prima facie* case of obviousness, the Examiner must set forth the differences in the claim over the applied reference, set forth the proposed modifications of the reference, which would be necessary to arrive at the claimed subject matter, and explain why the proposed modification would be obvious.

As summarized above, all of the independent claims are patentable over Warrior. The Dicenzo reference has been reviewed with respect to the 35 U.S.C. 103(a) rejection, and does not obviate the deficiencies of Warrior in regards to discerning a parameter affecting system performance. Accordingly claims 2-8, 10-12, 14-18 and 20 are allowable by virtue of their dependency from allowable base claims 1, 9, 13 and 19 respectively, as well as for the subject matter they separately recite. Thus, it is respectfully requested that the rejections of claims 2-8, 10-12, 14-18 and 20 under 35 U.S.C. 103(a) be withdrawn.

**Conclusion**

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,  
  
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